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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/666,951	09/20/00	BECKMANN	F 2641/207-168
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EXAMINER

MANLOVE, S

ART UNIT

PAPER NUMBER

1772

DATE MAILED:

10/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/666,951

Applicant(s)

BECKMANN, FRIEDHELM

Examiner

Shalie A. Manlove

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,6,8, 10-11, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Russell (WO 93/05103).

As to claim 1, Russell (WO'103) teaches a method of producing a hollow section with internal reinforcement comprises: coating a solid core material with activatable material; enclosing the solid core material and the activatable material with an outer plate to form an assembly with a defined cavity inside said outer plate (abstract, lines 1-6, fig. 2); passing the assembly to a corrosion treatment bath subjecting all interior areas to a corrosion protecting agent (page 2, lines 8-10, 16-30) and subsequently passing the assembly to a drying oven for heating and thereby, initiating foaming of the activatable material and at least partly filling the cavity with the activatable material (page 2, lines 7-30).

As to claim 6, Russell (WO'103) teaches solid core material formed of a synthetic material reinforced with fibers selected from the group consisting of metal fibers, carbon fibers and glass fibers (page 1, lines 34-39).

As to claim 8, Russell (WO'103) teaches a method which comprises maintaining a temperature for coating the solid core material lower than a stoving temperature for an anticorrosion layer in the drying oven (page 4, lines 23-25).

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As to claim 10, Russell (WO'103) teaches a method wherein coating step comprises coating the solid core material with the activatable material only in some areas (page 3, lines 5-page 6, line 20).

As to claims 11 and 13, Russell (WO'103) teaches a method which comprises forming the core material from a reinforcing material and selecting an outer material used for coating from the group consisting of an energy-absorbing material and an acoustic foam (page 1, lines 34-36 and page 2, lines 26-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 2-5, 7, 9, 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell (WO 93/05103) in view of Thum (USPN 5194199).

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As to claim 2, Russell (WO'103) teaches the invention as described above. Russell (WO'103) fails to teach a method wherein the cavity is defined between the outer plate and the activatable material.

However, Thum ('199) teaches a method wherein the cavity is defined between the outer plate and the activatable material for the purpose of producing a hollow section with internal reinforcement (fig 1, #1,2,3,5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a method wherein the cavity is defined between the outer plate and the activatable material in order to produce a hollow section with internal reinforcement as taught by Thum ('199).

As to claim 3, Russell (WO'103) teaches the invention as described above. Russell fails to teach a method wherein the cavity is completely filled by foaming the activatable material.

However, Thum ('199) teaches a method wherein the cavity is completely filled by foaming the activatable material for the purpose of producing a hollow section with internal reinforcement (fig 1 and 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a method wherein the cavity is completely filled by foaming the activatable material in order to produce a hollow section with internal reinforcement as taught by Thum ('199).

As to claims 4 and 5, Russell (WO'103) teaches the invention as described above. Russell fails to teach a method wherein the solid core material is formed of a foamed metallic material.

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However, Thum ('199) teaches a method wherein the solid core material is formed of a foamed/unfoamed metallic material for the purpose of reinforcing a hollow section (col. 2, lines 17-19). The solid core material would be formed of a foamed/unfoamed metallic material depending on product end use and economics.

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a method wherein the solid core material is formed of a foamed/unfoamed metallic material in order to reinforce a hollow section as taught by Thum ('199).

As to claim 7, Russell (WO'103) teaches the invention as described above. Russell fails to teach a method wherein the solid core material is formed of a hollow section.

However, Thum ('199) teaches a method wherein the solid core material is formed of a hollow section for the purpose of reinforcement (fig 1, #3).

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a method wherein the solid core material is formed of a hollow section in order to reinforce it as taught by Thum ('199).

As to claim 9, Russell (WO'103) teaches the invention as described above. Russell fails to teach a method comprising forming the cavity between the activatable material and the outer plate with spacers formed on the activatable material.

However, Thum ('199) teaches a method comprising forming the cavity between the activatable material and the outer plate with spacers formed on the activatable material for the purpose of centrally positioning the core (col. 3, lines 3-15).

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Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a method comprising forming the cavity between the activatable material and the outer plate with spacers formed on the activatable material in order to centrally position the core as taught by Thum ('199).

As to claim 15, Russell (WO'103) teaches a hollow section comprising: solid core material formed of a material selected from the group consisting of foam metallic material, unfoamed metallic, material synthetic material reinforced with fibers selected from the group of metal fibers, carbon fibers, and glass fibers, and a hollow section (page 1, lines 20-39); activated, heat-foamed material on said solid core material (page 2, lines 8-15); and said solid core material, said foamed material, and said outer plate being corrosion treated with a corrosion protection agent and subsequent drying (col. 2, lines 10-30, and fig. 1, 2). Russell (WO'103) fails to teach outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core material and said outer plate.

However, Thum ('199) teaches the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate for the purpose of producing a strengthening structure (fig.1 # 1,2,3,5, and fig 2).

Thus, it would have been obvious to one of ordinary skill at the time applicant's invention was made to provide Russell (WO'103) the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate in order to produce a strengthening structure as taught by Thum.

As to claim 16, Russell (WO'103) teaches a hollow section comprising: solid core material formed of a material selected from the group consisting of foam metallic material, unfoamed

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metallic, material synthetic material reinforced with fibers selected from the group of metal fibers, carbon fibers, and glass fibers, and a hollow section (page 1, lines 20-39); activated, heat-foamed material on said solid core material (page 2, lines 8-15); and said solid core material, said foamed material, and said outer plate being corrosion treated with a corrosion protection agent and subsequent drying (col. 2, lines 10-30, and fig. 1, 2). Russell (WO'103) fails to teach a cavity which is completely filled by foamed material.

However, Thum ('199) teaches a cavity which is completely filled by foamed material for the purpose of producing a reinforced article (col. 2, lines 15-17, and col. 3, lines 22-25, fig. 1, 2).

Thus, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Russell (WO'103) a cavity, which is completely filled by foamed material in order to produce a reinforced article as taught by Thum ('199).

As to claim 17, Russell (WO'103) teaches the hollow section wherein the solid core material is coated with said foamed material only in some areas (page 3, line 5- page 4 line 9). Russell (WO'103) fails to teach outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core material and said outer plate.

However, Thum ('199) teaches the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate for the purpose of producing a strengthening structure (fig.1 # 1,2,3,5, and fig 2).

Thus, it would have been obvious to one of ordinary skill at the time applicant's invention was made to provide Russell (WO'103) the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate in order to produce a strengthening structure as taught by Thum.

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As to claim 18, Russell (WO'103) teaches a hollow section wherein the core material and a coating outer material are formed of material selected from the group consisting of a reinforcing foam, an energy-absorbing foam system and an acoustic foam (page 9, lines 17-26, 31-34).

Russell (WO'103) fails to teach outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core material and said outer plate.

However, Thum ('199) teaches the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate for the purpose of producing a strengthening structure (fig.1 # 1,2,3,5, and fig 2).

Thus, it would have been obvious to one of ordinary skill at the time applicant's invention was made to provide Russell (WO'103) the outer plate enclosing said solid core material with said foamed material at least partly filling a defined cavity between said solid core materials and said outer plate in order to produce a strengthening structure as taught by Thum.

5. Claims 12,14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell (WO 93/05103).

As to claims 12, and 14, Russell (WO'103) teaches the invention except for a method which comprises forming a core material formed from an energy-absorbing material or acoustic foam and having an outer material consisting of reinforcing material and acoustic foam or reinforcing material and an energy-absorbing material respectively.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to comprise a method for forming a core material formed from an energy-absorbing material or acoustic foam and having an outer material consisting of reinforcing material and

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acoustic foam or reinforcing material and an energy-absorbing material respectively since the examiner takes Official Notice of the equivalence of filling a hollow article with energy-absorbing material or acoustic foam or reinforcing material and reinforcing the article for their use in the structural integrity, sound-absorbing, and energy absorbing art, and the selection of any of these known equivalents to be utilized as a reinforcement material for the results of structural integrity, sound-absorbing, and energy absorbing would be within the level of ordinary skill in the art.

Response to Arguments

6. Applicant's arguments with respect to claims 1 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shalie A. Manlove whose telephone number is (703) 308-8275.


The examiner can normally be reached on M-F 8:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on (703) 308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3599 for regular communications and (703) 305 3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Shalie A. Manlove
Examiner
Art Unit 1772

October 16, 2001


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772
10/22/01